

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
SHERMAN DIVISION**

STMICROELECTRONICS, INC.,)	C.A. NO. 4:05CV45
Plaintiff,)	Judge Michael H. Schneider
)	
v.)	Magistrate Judge Donald D. Bush
)	
SANDISK CORP.,)	Jury Trial Demanded
)	
Defendant)	
Counterclaimant Plaintiff.)	
)	
v.)	
)	
STMICROELECTRONICS, N.V., and)	
STMICROELECTRONICS, INC.)	
)	
Counterclaimant Defendants.)	
)	

**SANDISK CORPORATION'S SECOND AMENDED ANSWER,
AFFIRMATIVE DEFENSES, AND COUNTERCLAIMS**

Defendant SanDisk Corporation (“SanDisk”) hereby responds to the allegations and averments in plaintiff STMicroelectronics, Inc.’s (“ST’s”) Complaint as follows:

PARTIES

1. SanDisk admits the allegations of paragraph 1 of the Complaint.
2. To the extent alleged in paragraph 2 of the Complaint, SanDisk denies it is in the business of marketing and selling semiconductor products; rather, SanDisk sells products that contain semiconductors. SanDisk admits the remaining allegations of this paragraph.

JURISDICTION AND VENUE

3. SanDisk admits the Complaint purports to set forth a patent infringement action under the patent laws of the United States, 35 U.S.C. § 101, et seq. SanDisk admits this Court has subject matter jurisdiction over such claims pursuant to 28 U.S.C. §§ 1331 and 1338(a).

4. SanDisk admits venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b), (c), and 1400(b).

THE PATENTS

5. SanDisk admits that U.S. Patent No. 5,073,816 (“‘816 patent”), attached as Exhibit A to the Complaint, is entitled “Packaging Semiconductor Chips,” appears to have issued from the U.S. Patent & Trademark Office (“USPTO”) on December 17, 1991, and on its cover identifies Elwyn P. M. Wakefield and Christopher P. H. Walker as the inventors. SanDisk explicitly denies the ‘816 patent was duly and legally issued by the USPTO or that Messrs. Wakefield and Walker were first to invent the claimed subject matter.

6. SanDisk admits that U.S. Patent No. 6,100,581 (“‘581 patent”), attached as Exhibit B to the Complaint, is entitled “Semiconductor Chip Packaging Having Printed Circuitry Or Printed Circuit Registration Feature,” appears to have issued from the USPTO on December August 8, 2000, and on its cover identifies Elwyn P. M. Wakefield and Christopher P. H. Walker as the inventors. SanDisk explicitly denies the ‘581 patent was duly and legally issued by the USPTO or that Messrs. Wakefield and Walker were first to invent the claimed subject matter.

7. SanDisk admits that U.S. Patent No. 4,698,720 (“‘720 patent”), attached as Exhibit C to the Complaint, is entitled “Dynamic Protection Integrated Device, In Particular For MOS Input Stages Integrated Circuits,” appears to have issued from the USPTO on October 6, 1987, and on its cover identifies Roberto Finaurini as the inventor. SanDisk explicitly denies the ‘720 patent was duly and legally issued by the USPTO or that Mr. Finaurini was first to invent the claimed subject matter.

8. SanDisk admits that U.S. Patent No. 4,839,768 (“‘768 patent”), attached as Exhibit D to the Complaint, is entitled “Protection Of Integrated Circuits From Electrostatic

Discharges,” appears to have issued from the USPTO on June 13, 1989, and on its cover identifies Vincenzo Daniele and Mirella Benedetti as the inventors. SanDisk explicitly denies the ‘768 patent was duly and legally issued by the USPTO or that Messrs. Daniele and Benedetti were first to invent the claimed subject matter.

9. SanDisk admits that U.S. Patent No. 6,259,626 (“626 patent”), attached as Exhibit E to the Complaint, is entitled “Method For Storing Bytes in Multi-level Non-volatile Memory Cells,” appears to have issued from the USPTO on July 10, 2001, and on its cover identifies Marco Pasotti, Giovanni Guaitini, and Pier Luigi Rolandi as the inventors. SanDisk explicitly denies the ‘626 patent was duly and legally issued by the USPTO or that Messrs. Pasotti, Guaitini, and Rolandi were first to invent the claimed subject matter.

10. SanDisk admits that U.S. Patent No. 6,643,184 (“184 patent”), attached as Exhibit F to the Complaint, is entitled “Method Of Erasing A Flash Memory,” appears to have issued from the USPTO on November 4, 2003, and on its cover identifies Federico Pio as the inventor. SanDisk explicitly denies the ‘184 patent was duly and legally issued by the USPTO or that Mr. Pio was first to invent the claimed subject matter.

11. SanDisk admits that the public record reflects that ST is the owner of the ‘768, ‘816, ‘581, ‘720, ‘626, and ‘184 patents (collectively, “ST Patents”). SanDisk is without knowledge or information sufficient to form a belief as to the truth of the allegations that ST is entitled to sue for past and future infringement of the ST Patents, and on that basis denies such allegations.

BACKGROUND

12. SanDisk incorporates its preceding responses to the allegations of paragraphs 1-11 of the Complaint.

13. The ST Patents are attached as Exhibits A-F of the Complaint and speak for themselves as to their purpose. SanDisk denies all remaining allegations of paragraph 13 of the Complaint.

14. SanDisk denies the allegations of paragraph 14 of the Complaint.

15. SanDisk denies that filing the Complaint in this action constitutes notice effective as to pre-filing activity.

ANSWER TO COUNT 1

16. SanDisk incorporates its preceding responses to the allegations set forth in paragraphs 12-15 of the Complaint.

17. SanDisk denies the allegations of paragraph 17 of the Complaint.

18. SanDisk denies the allegations of paragraph 18 of the Complaint.

ANSWER TO COUNT 2

19. SanDisk incorporates its preceding responses to the allegations set forth in paragraphs 12-15 of the Complaint.

20. SanDisk denies the allegations of paragraph 20 of the Complaint.

21. SanDisk denies the allegations of paragraph 21 of the Complaint.

ANSWER TO COUNT 3

22. SanDisk incorporates its preceding responses to the allegations set forth in paragraphs 12-15 of the Complaint.

23. SanDisk denies the allegations of paragraph 23 of the Complaint.

24. SanDisk denies the allegations of paragraph 24 of the Complaint.

ANSWER TO COUNT 4

25. SanDisk incorporates its preceding responses to the allegations set forth in paragraphs 12-15 of the Complaint.

26. SanDisk denies the allegations of paragraph 26 of the Complaint.

27. SanDisk denies the allegations of paragraph 27 of the Complaint.

ANSWER TO COUNT 5

28. SanDisk incorporates its preceding responses to the allegations set forth in paragraphs 12-15 of the Complaint.

29. SanDisk denies the allegations of paragraph 29 of the Complaint.

30. SanDisk denies the allegations of paragraph 30 of the Complaint.

ANSWER TO COUNT 6

31. SanDisk incorporates its preceding responses to the allegations set forth in paragraphs 12-15 of the Complaint.
32. SanDisk denies the allegations of paragraph 32 of the Complaint.
33. SanDisk denies the allegations of paragraph 33 of the Complaint.

DEMAND FOR JURY

34. SanDisk admits that ST has requested a jury trial.

AFFIRMATIVE DEFENSES

1. SanDisk is not infringing and has not infringed, is not inducing and has not induced others to infringe, and is not contributorily infringing and has not contributorily infringed, any valid and/or enforceable claim of the ST Patents.
2. The claims of the ST Patents are invalid for failure to satisfy one or more of the conditions of patentability of 35 U.S.C, § 1 *et seq.*, including without limitation §§ 101, 102, 103, and/or 112.
3. ST's patent infringement claims are barred based on the doctrine of laches.
4. ST's patent infringement claims are barred based on the doctrine of equitable estoppel.
5. Upon information and belief, ST's patent infringement claims are barred by license.
6. ST's remedies are limited by 35 U.S.C. § 287.
7. ST's claim for injunctive relief based on the '720 patent is barred by 35 U.S.C. § 154.
8. The '816 and '581 patents are unenforceable by reason of inequitable conduct committed during the prosecution of the patents before the USPTO. While the totality of such inequitable conduct is not now known in its entirety and with precision, such conduct includes at least the following deliberate withholdings of information from the USPTO. The applicants of the '816 and '581 patents failed to disclose to the USPTO the following references that were

cited in a search report of the European Patent Office: (1) IBM TECHNICAL DISCLOSURE BULLETIN, vol. 32, no. 2, July 1989, pages 262-65, entitled “Edge Connected TAB Memory Package,” (2) IBM TECHNICAL DISCLOSURE BULLETIN, vol. 14, no. 10, March 1972, page 2911 entitled “Chip Air Cooling Arrangement,” (3) IBM TECHNICAL DISCLOSURE BULLETIN, vol. 24, no. 2, July 1981, pages 1214-15, entitled “Flexible Tape Conductor Interconnection for Chips,” (4) U.S. Patent No. 3,780,352, (5) WO-A-87 06 766, (6) GB-A-2 218 847, and (7) WO-A-89 12 911. Further, the applicants of the ‘816 and ‘581 patents failed to disclose to the USPTO the following foreign references that were discussed in the specification of the ‘816 and ‘581 patents: (1) WO 88/02552, (2) EP 0178227, (3) GB 1530216, and (4) GB 1529518. Each breach of the duty of candor that the applicants owed to the USPTO was a material breach. Each such breach was, upon information and belief, intentional and specifically intended to deceive the USPTO as to the true state of affairs so as to induce the USPTO to issue the ‘816 and ‘581 patents. But for the inequitable conduct, the ‘816 and ‘581 patents would not have issued. SanDisk reserves the right to amend this allegation upon discovery from Plaintiff of information related to this allegation, as well as to amend this answer in the event other defenses are discovered during the course of this suit.

9. The ‘626 patent is unenforceable by reason of inequitable conduct committed during the prosecution of the patent before the USPTO. While the totality of such inequitable conduct is not known in its entirety and with precision, such conduct includes at least the following deliberate withholding of information from the USPTO. On information and belief, prior to July 10, 2001, at least one named inventor of the ‘626 patent was aware of the following prior art reference: Takeuchi, K., et al., “A Multi-Page Cell Architecture for High-Speed Programming Multi-Level NAND Flash Memories,” IEEE JOURNAL OF SOLID-STATE CIRCUITS, Vol. 33, No. 8 (Aug. 1998). The applicants of the ‘626 patent failed to disclose this reference to the USPTO. This breach of the duty of candor that the applicants owed to the USPTO was a material breach. This breach was, upon information and belief, intentional and specifically

intended to deceive the USPTO as to the true state of affairs so as to induce the USPTO to issue the ‘626 patent. But for the inequitable conduct, the ‘626 patent would not have issued.

COUNTERCLAIMS

SanDisk counterclaims against Plaintiff ST and STMicroelectronics N.V. (“ST N.V.”) (collectively “STMicro”), without prejudice to its pending motion to transfer, as follows:

1. Counterclaim plaintiff SanDisk is a corporation organized and existing under the laws of the state of Delaware with its principal place of business in Sunnyvale, California.

2. On information and belief, counterclaim defendant ST is a corporation organized and existing under the laws of the state of Delaware with its principal place of business in Carrollton, Texas. ST markets and sells semiconductor products throughout the United States, including within this District. By filing its Complaint, ST has submitted to personal jurisdiction in this District.

3. On information and belief, ST N. V. is a corporation organized under the laws of The Netherlands with its principal place of business at 39, Chemin du Champ-des-Filles, 1228 Plan-les-Ouates, Geneva, Switzerland. ST is a wholly-owned subsidiary of ST N.V. ST N.V., through its U.S. sales offices and distributors, markets and sells semiconductor products throughout the United States, including within this District.

4. This Court has subject matter jurisdiction over these Counterclaims pursuant to 28 U.S.C. §§ 1331, 1338, and 2201 as it arises under an Act of Congress relating to patents.

5. Venue is proper in this district under 28 U.S.C. §§ 1391(b), (c) and 1400.

THE SANDISK PATENTS

6. SanDisk repeats and realleges the allegations in paragraphs 1-5 of its counterclaims.

7. U.S. Patent No. 5,719,808 (“‘808 patent”), invented by Eliyahou Harari, Robert D. Norman, and Sanjay Mehrotra, entitled “Flash EEPROM System,” was duly and legally issued by the USPTO on February 17, 1998. A copy of the ‘808 patent is attached hereto as Exhibit 1.

8. U.S. Patent No. 5,583,812 (“‘812 patent”), invented by Eliyahou Harari, entitled “Flash EEPROM System Cell Array with More than Two Storage States per Memory Cell,” was duly and legally issued by the USPTO on December 10, 1996. A copy of the ‘812 patent is attached hereto as Exhibit 2.

9. By right of assignment, SanDisk is the owner of all right, title and interest in and to the ‘808 and ‘812 patents (“SanDisk Patents”) and is entitled to sue for past, present and future infringement.

BACKGROUND

10. SanDisk repeats and realleges the allegations in paragraphs 1-9 of its counterclaims.

11. STMicro has imported into the United States, and/or made, used, sold, and/or offered for sale in the United States products infringed by the SanDisk Patents and/or products made using the methods claimed in the SanDisk Patents and/or has induced and/or contributed to such activities by others.

FIRST COUNTERCLAIM FOR INFRINGEMENT OF THE ‘808 PATENT

12. SanDisk repeats and realleges the allegations in paragraphs 1-11 of its counterclaims.

13. STMicro has been and is now directly infringing, contributing to the infringement of, and/or inducing infringement by others of, the ‘808 patent.

14. STMicro has had actual knowledge of the ‘808 patent and is willfully infringing the ‘808 patent.

15. STMicro’s infringement of the ‘808 patent has caused and will continue to cause SanDisk irreparable harm unless enjoined by the Court. SanDisk has no adequate remedy at law.

SECOND COUNTERCLAIM FOR INFRINGEMENT OF THE ‘812 PATENT

16. SanDisk repeats and realleges the allegations in paragraphs 1-15 of its counterclaims.

17. STMicro has been and is now directly infringing, contributing to the infringement of, and/or inducing infringement by others of, the '812 patent.

18. STMicro has had actual knowledge of the '812 patent and is willfully infringing the '812 patent.

19. STMicro's infringement of the '812 patent has caused and will continue to cause SanDisk irreparable harm unless enjoined by the Court. SanDisk has no adequate remedy at law.

THIRD COUNTERCLAIM FOR DECLARATORY JUDGMENT FOR INVALIDITY, NON-INFRINGEMENT, AND UNENFORCEABILITY OF THE '816 PATENT

20. SanDisk repeats and realleges the allegations in paragraphs 1-19 of its counterclaims.

21. This declaratory judgment counterclaim is asserted against ST under the patent laws, Title 35, United States Code and under Title 28, United States Code, §§ 2201 and 1338(a).

22. ST has averred that the '816 patent was duly and legally issued, it is the owner of all right, title and interest including the right to sue for past and future infringement, and SanDisk infringes the '816 patent.

23. SanDisk denies that, either directly, contributorily, and by inducement, it has infringed, and that it is infringing, any valid and/or enforceable claim of the '816 patent, and SanDisk further asserts that the '816 patent is unenforceable by reason of inequitable conduct committed during prosecution of the patent before the USPTO, and invalid for failing to satisfy the conditions for patentability set forth in Part II of Title 35 of the United States Code, including, but not limited to, §§ 102, 103, and 112.

24. Therefore, there has been and is now an actual controversy between SanDisk and ST as to the invalidity, non-infringement, and unenforceability of the '816 patent.

FOURTH COUNTERCLAIM FOR DECLARATORY JUDGMENT FOR INVALIDITY, NON-INFRINGEMENT, AND UNENFORCEABILITY OF THE '581 PATENT

25. SanDisk repeats and realleges the allegations in paragraphs 1-24 of its counterclaims.

26. This declaratory judgment counterclaim is asserted against ST under the patent laws, Title 35, United States Code and under Title 28, United States Code, §§ 2201 and 1338(a).

27. ST has averred that the '581 patent was duly and legally issued, it is the owner of all right, title and interest including the right to sue for past and future infringement, and SanDisk infringes the '581 patent.

28. SanDisk denies that, either directly, contributorily, and by inducement, it has infringed, and that it is infringing, any valid and/or enforceable claim of the '581 patent, and SanDisk further asserts that the '581 patent is unenforceable by reason of inequitable conduct committed during the prosecution of the patent before the USPTO, and invalid for failing to satisfy the conditions for patentability set forth in Part II of Title 35 of the United States Code, including, but not limited to, §§ 101, 102, 103, and 112.

29. Therefore, there has been and is now an actual controversy between SanDisk and ST as to the invalidity, non-infringement, and unenforceability of the '581 patent.

**FIFTH COUNTERCLAIM FOR INVALIDITY AND NON-INFRINGEMENT
OF THE '720 PATENT**

30. SanDisk repeats and realleges the allegations in paragraphs 1-29 of its counterclaims.

31. This declaratory judgment counterclaim is asserted against ST under the patent laws, Title 35, United States Code and under Title 28, United States Code, §§ 2201 and 1338(a).

32. ST has averred that the '720 patent was duly and legally issued, it is the owner of all right, title and interest including the right to sue for past and future infringement, and SanDisk infringes the '720 patent.

33. SanDisk denies that, either directly, contributorily, and by inducement, it has infringed, and that it is infringing, any valid and/or enforceable claim of the '720 patent, and SanDisk further asserts that the '720 patent is invalid for failing to satisfy the conditions for patentability set forth in Part II of Title 35 of the United States Code, including, but not limited to, §§ 101, 102, 103, and 112.

34. Therefore, there has been and is now an actual controversy between SanDisk and ST as to the invalidity and non-infringement of the '720 patent.

**SIXTH COUNTERCLAIM FOR INVALIDITY AND NON-INFRINGEMENT
OF THE '768 PATENT**

35. SanDisk repeats and realleges the allegations in paragraphs 1-34 of its counterclaims.

36. This declaratory judgment counterclaim is asserted against ST under the patent laws, Title 35, United States Code and under Title 28, United States Code, §§ 2201 and 1338(a).

37. ST has averred that the '768 patent was duly and legally issued, it is the owner of all right, title and interest including the right to sue for past and future infringement, and SanDisk infringes the '768 patent.

38. SanDisk denies that, either directly, contributorily, and by inducement, it has infringed, and that it is infringing, any valid and/or enforceable claim of the '768 patent, and SanDisk further asserts that the '768 patent is invalid for failing to satisfy the conditions for patentability set forth in Part II of Title 35 of the United States Code, including, but not limited to, §§ 101, 102, 103, and 112.

39. Therefore, there has been and is now an actual controversy between SanDisk and ST as to the invalidity and non-infringement of the '768 patent.

**SEVENTH COUNTERCLAIM FOR INVALIDITY, NON-INFRINGEMENT, AND
UNENFORCEABILITY OF THE '626 PATENT**

40. SanDisk repeats and realleges the allegations in paragraphs 1-39 of its counterclaims.

41. This declaratory judgment counterclaim is asserted against ST under the patent laws, Title 35, United States Code and under Title 28, United States Code, §§ 2201 and 1338(a).

42. ST has averred that the '626 patent was duly and legally issued, it is the owner of all right, title and interest including the right to sue for past and future infringement, and SanDisk infringes the '626 patent.

43. SanDisk denies that, either directly, contributorily, and by inducement, it has infringed, and that it is infringing, any valid and/or enforceable claim of the '626 patent, and SanDisk further asserts that the '626 patent is unenforceable by reason of inequitable conduct committed during prosecution of the patent before the USPTO, and invalid for failing to satisfy the conditions for patentability set forth in Part II of Title 35 of the United States Code, including, but not limited to, §§ 101, 102, 103, and 112.

44. Therefore, there has been and is now an actual controversy between SanDisk and ST as to the invalidity, non-infringement, and unenforceability of the '626 patent.

**EIGHTH COUNTERCLAIM FOR INVALIDITY AND NON-INFRINGEMENT OF THE
'184 PATENT**

45. SanDisk repeats and realleges the allegations in paragraphs 1-44 of its counterclaims.

46. This declaratory judgment counterclaim is asserted against ST under the patent laws, Title 35, United States Code and under Title 28, United States Code, §§ 2201 and 1338(a).

47. ST has averred that the '184 patent was duly and legally issued, it is the owner of all right, title and interest including the right to sue for past and future infringement, and SanDisk infringes the '184 patent.

48. SanDisk denies that, either directly, contributorily, and by inducement, it has infringed, and that it is infringing, any valid and/or enforceable claim of the '184 patent, and SanDisk further asserts that the '184 patent is invalid for failing to satisfy the conditions for patentability set forth in Part II of Title 35 of the United States Code, including, but not limited to, §§ 101, 102, 103, and 112.

49. Therefore, there has been and is now an actual controversy between SanDisk and ST as to the invalidity and non-infringement of the '184 patent.

DEMAND FOR JURY

50. SanDisk requests a jury to hear its counterclaims.

PRAYER FOR RELIEF

WHEREFORE, SanDisk prays that this Court:

- (a) Dismiss the Complaint of ST against SanDisk with prejudice;
- (b) Declare that SanDisk has not and does not infringe any valid and/or enforceable claim of the ST Patents, directly or indirectly, literally or by equivalents;
- (c) Declare that each claim of the ST Patents is invalid and the '581, '816, and '626 patents are unenforceable;
- (d) Enjoin ST and ST N.V., their officers, agents, representatives, distributors, employees, affiliates, parent and subsidiary corporations, attorneys, and other person(s) in active concert or participation with them from charging infringement or instituting any action for infringement of the ST Patents against SanDisk or anyone in privity with SanDisk, including its successors, assigns, agents, suppliers, customers, licensees, and sublicensees;
- (e) Adjudge that ST and ST N.V. have infringed the SanDisk Patents;
- (f) Enjoin ST and ST N.V., their officers, agents, representatives, distributors, employees, affiliates, parent and subsidiary corporations, attorneys, and other person(s) in active concert or participation with them from infringing, directly or indirectly, the SanDisk Patents;
- (g) Award SanDisk its damages to compensate SanDisk for ST's and ST N.V.'s past infringement of the SanDisk Patents;
- (h) Declare that STMicro's infringement has been willful;
- (i) Award SanDisk costs, together with reasonable attorneys' fees and all other expenses for this suit because this case is exceptional under 35 U.S.C. § 285; and
- (j) Award SanDisk such other relief as this Court may deem just and proper.

Dated: March 10, 2006

Respectfully submitted,

/s/ Mark N. Reiter with permission Stacy B. Margolies

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CERTIFICATE OF SERVICE

The undersigned certifies the foregoing document was electronically filed and hence served electronically on all counsel who have consented to electronic service pursuant to Local Rule CV-5(a)(3)(A).

/s/ Stacy B. Margolies
Stacy B. Margolies